



## AE-AN-TR-009-TR Multicoax Series Launch (Footprint)

### Purpose:

This application note provides detailed information for why we require customers to optimize the TR launch (footprint).

Amphenol Ardent Concepts' patented TR Multicoax Series compression mount, high frequency connector assembly stands alone as the only industry solution for high density multi-coaxial cable assembly capable of measurements up to 70 GHz.

Due to the highly precise and high-performance nature of the assembly, Amphenol Ardent strives to optimize all aspects of the TR Series design, including the PCB launch (footprint).

### PCB Launch (Footprint)

The PCB launch (footprint) for the TR connector is integral in producing the maximum performance from the TR connector. Due to the multitude of design options available during PCB construction, it is highly advised that an optimization of the TR Series launch (footprint) be performed.

Amphenol Ardent creates 3D models of the customer's PCB board and along with in-house 3D models of the TR connectors, advanced electro-magnetic 3D simulation is used to analyze and provide corrective solutions for the optimal launch (footprint) configuration. We pride ourselves on helping the customer vertically integrate the TR Series connector into PCB design through launch (footprint) optimization.

When Amphenol Ardent optimizes the launch (footprint), we are ensuring everything related to the TR Series connector assembly has been configured for maximum performance. Each optimization is uniquely performed around the customer's specific PCB design to account for differences in:

- Board materials (dielectric constants)
- Layer thicknesses
- Complete PCB stack-up

Customers' board files are commonly used by Amphenol Ardent to verify that all applications will be successful, both electrically and mechanically. As a result of the customer board file verification and optimization process, Amphenol Ardent has been successful in diagnosing problems with our customers' PCBs early on. This helps stop costly mistakes from happening saving both time and money.

---

[Amphenol Ardent Concepts](#)

4 Merrill Industrial Drive Hampton, NH 03842

(603) 474-1760

Sales: [info@ardentconcepts.com](mailto:info@ardentconcepts.com) Technical: [Support@ardentconcepts.com](mailto:Support@ardentconcepts.com)



If a customer's PCB materials and stack-up remain consistent, a TR Series optimization can be reused for future projects. This can greatly reduce time and costs for future PCB designs.

Amphenol Ardent prides itself on helping the customer vertically integrate the TR Series connector into PCB design through launch (footprint) optimization.

### **Application Note Summary:**

- Amphenol Ardent Concepts strives to optimize all aspects of the TR Series design, including the PCB launch (footprint).
- Each optimization is performed to account for differences in board materials, layer thicknesses, and complete PCB stack-up.
- If a customer's PCB materials and stack-up remain consistent, a TR Series optimization can be reused for future projects.

---

[Amphenol Ardent Concepts](#)

4 Merrill Industrial Drive Hampton, NH 03842

(603) 474-1760

Sales: [info@ardentconcepts.com](mailto:info@ardentconcepts.com) Technical: [Support@ardentconcepts.com](mailto:Support@ardentconcepts.com)



## Who Is Amphenol Ardent Concepts?

Amphenol Ardent Concepts is a leading designer and manufacturer of high performance multicoax and coaxial assemblies, connectors, and sockets used in the development of next generation semiconductors and electronics systems. Our core technology is the smallest, fastest, most electrically efficient compression mount connector technology worldwide. As data rate requirements increase and devices and systems shrink, Ardent's products deliver superior signal integrity in a dense footprint that can be reusable across programs to maximize cost savings.

---

[Amphenol Ardent Concepts](#)

4 Merrill Industrial Drive Hampton, NH 03842

(603) 474-1760

Sales: [info@ardentconcepts.com](mailto:info@ardentconcepts.com) Technical: [Support@ardentconcepts.com](mailto:Support@ardentconcepts.com)